

The Contributions of International Students to International Trade and Cross-Border E-Commerce: Evidence from China

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Abstract

International students contribute to countries in various sectors: economic, social, cultural, and scientific fields. China is not an exception. Recently, due to Covid-19 restrictions, the Chinese government does not allow foreign customers to come to China. Thus, customers not relying on cross-border e-commerce platforms get in touch with Chinese companies through foreigners residing in China, especially international students. This paper assesses the contributions of international students to China's international trade and cross-border e-commerce. We used a questionnaire to collect data from 144 international students currently studying and living in China. Then, we used descriptive statistics to analyze the data. Findings indicate that international students play a crucial role in China's international trade and cross-border e-commerce. On the one hand, they connect foreign customers with Chinese companies; check their offices and factories on behalf of family members, friends, and acquaintances. Moreover, they help foreign customers to purchase items from China. On the other hand, international students promote and advertise China's cross-border e-commerce platforms in foreign countries through their social networks. They buy things from China's cross-border e-commerce platforms for sending to their home country and play an essential role in cross-border e-commerce's live streaming. However, very few international students have an opportunity to do an internship in China during their studies. Therefore, the Chinese government should promote internships for international students and facilitate the employment of graduated students.

Keywords: international students, international trade, cross-border e-commerce, China

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Introduction

After the financial crisis in 2008 and its negative impact on foreign trade, China adopted cross-border e-commerce as a new international business model. Over a few years ago, cross-border e-commerce imports and exports in China increased rapidly. Recent data show that the total amount of cross-border e-commerce transactions in 2019 was more than 10 trillion yuan corresponding to an increase of 5% over 2018. Moreover, data also show that the penetration rate of cross-border e-commerce in international trade reached 37% in 2019, more than 3% higher than that in 2018, ranking the highest in the world (Li, 2021).

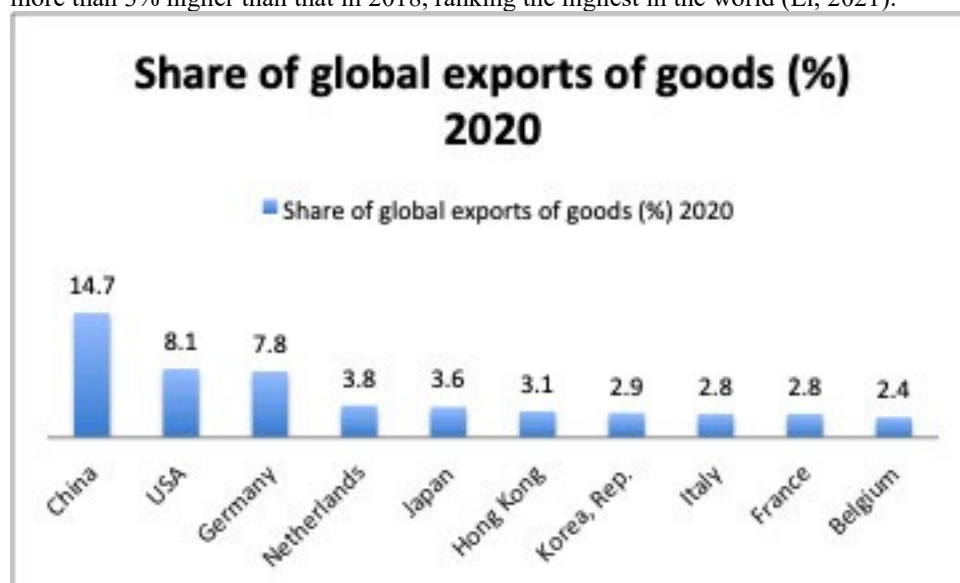


Figure 1. Share of global exports of goods (%) 2020 according to UNCTAD

According to Dubravka and Sira (2015), various elements can affect the growth of international trade:

political, economic, and practical factors. Exchange rates, growing globalization, competitiveness, tariffs and trade barriers, cultures, languages, transportation costs, and various trade agreements influence a country's international trade.

However, in the context of Covid-19, China's international trade and cross-border e-commerce face various difficulties. Among them are: falling orders, cancellations and delays ensue, obstructions of international logistics, and restructuring of the global supply chain. During the last two years, due to Covid-19 restrictions, the Chinese government does not allow foreign customers to come to China. Therefore, customers not using CBEC platforms rely on foreigners residing in China, especially international students, to connect with Chinese companies. International students contribute to countries in economic, social, cultural, and scientific fields. To the best of our knowledge, few studies assess the contributions of international students to China's international trade and cross-border e-commerce. This study aims to evaluate the benefits China's international trade and CBEC get from international students living in China. The empirical question assesses international students' contributions to China's international trade and cross-border e-commerce.

The rest of this paper is structured as follows. The next section reviews the literature on international students in China and the contributions of international students to a country. Section three presents the research method used in this study. Section four discusses the results. The last section concludes.

2. Literature review

2.1. Overview of international students in China

Different stages classify the development of international education in China. Li (2000) distinguishes four stages. The first stage occurred between 1950 and 1965, the beginning of the foundation for international students' education. At this time, China has developed various relations with some countries in Eastern parts of Europe and the former Soviet Union. It increased international student exchanges. After the *Bandung Conference* in 1954, China started to welcome more international students from Asia, Africa, and the Latin Americas. The second stage is the period from 1966-1977, known as the period of setbacks. The principal reverse happened due to the *Cultural Revolution* of 1966. It significantly affected some institutions' ability to pursue international student education. Therefore, between 1966-1972, a seven-year termination characterized international student exchange programs. However, the *Cultural Revolution* ended in the 1970s, and China reinforced its long-standing diplomatic relations with about 124 countries, which resumed international student education again. The third stage occurred between 1978 and 1989. Several improvements in international education marked this period. In 1978, China adopted *reform and opening-up policies* that improved the development of higher education in the same context. Historically, the State Council approved two documents: the 1979 *Regulations on Work Related to International Students (revised version)* and the 1979 *Charge Standards for Self-paying International Students*, which made China more accessible to self-financed international students. The fourth stage spanned the period from 1990-1998. Adopting a new system, including administrative and incentive mechanisms, marked this period. In 1966, the *China Scholarship Council (CSC)* characterized the administrative mechanism. According to Cheng and Huang (2008), international student education experienced rapid development during this stage.

Nowadays, Mainland China accounts for 8% of the international student market, after the USA and the UK, respectively 22% and 11% (Biney & Cheng, 2021). Recent data show that non-degree programs enrolled 234,063 international students. Degree-programs enrolled 258,122 international students. Post-graduate programs enrolled 85,062 international students, 59,444 for master's degrees, and 25,618 as doctoral students (Ministry of Education MOE, 2019). According to Tian and Liu (2019), inward student mobility plays a crucial role. It reflects China's cultural influence and is a manifestation of the strength of higher education.

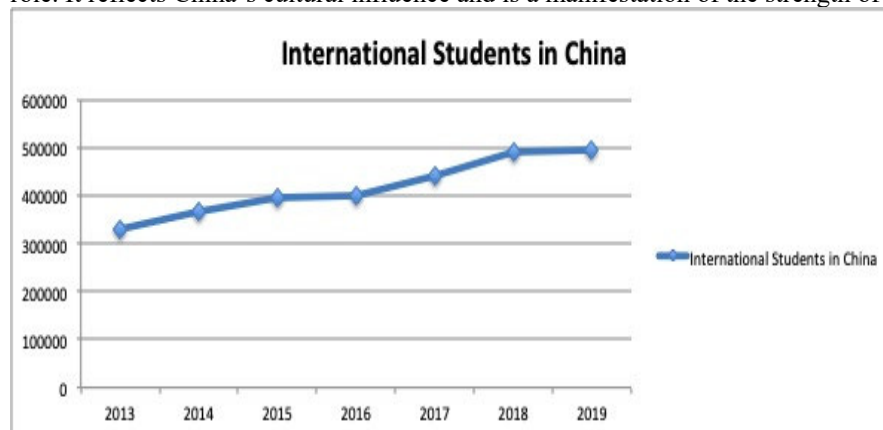


Figure 2. International Students in China, according to the Institute of International Education

2.2. Contributions of international students to the host country

International students offer various benefits to their host country; they play a positive role in many areas. Bergerhoff (et al., 2013), using the Lucas growth model, find that international education has a positive effect on economic growth overall and in each specific country. The authors also find that international student mobility increases steady-state growth for both countries on average by 0.013 percentage points. Moreover, their findings indicate that the more a country tunes its education and migration policy, the more the benefits of international education. Oxford Economics (2013) classifies the impacts of international students on the host university and local economy into direct, indirect, and induced impacts. The direct benefits are fee income international students pay to the university while studying and subsistence spending. In addition, the expenditure of friends and relatives visiting international students. International students' indirect and induced benefits are the consumption of business services, logistics, utilities, clothing, food and beverages, recreation, and household goods. According to Campus France (2014), international students contribute 4.65 billion euros to the French economy. In the UK, they spent an estimated 7.2 billion euros on the UK economy in 2014 (Universities UK, 2017). Their contributions include living expenses such as accommodation, daily life expenditures, and occasional expenses such as benefits generated by relatives during visits to France and trips taken on French airlines.

Similarly, Münch and Hoch (2013) suggest that the benefits of international students to the economy of the host country are the contribution to value-added, revenues from tuition fees, the knowledge transfer through student contacts, networks and migration, and strengthening of trade relations. According to the authors, international students have direct and indirect employment effects. They contribute to social cohesion, multilateral competencies, and international networks. Following Fang and Wu (2016), international students studying in China take the Chinese higher education's internationalization to a higher standard. They offer an "internationalization at home" experience to Chinese students. They increase the awareness of the internationalization of both faculty and students. In this sense, international students offer direct economic benefits. They stimulate the growth of various industries: tourism, transportation, and catering. International students are human resources for Chinese enterprises located abroad and play a crucial role in diplomatic relations (Chen & Wen, 2018). Furthermore, professional talents and cooperative relations with other countries emerged from international education in China (Han, 2014; Ma & Zhou, 2018). Süygün and Kaplan (2021) use the Poisson Pseudo Maximum Likelihood analysis and find that the number of international students in Turkey positively affects the exports of the provinces where they study

In summary, the current literature analyzing the contributions of international students to the host country highlights that they play a crucial role in various areas. International students have direct, indirect and induced impacts on the host country's economy. Furthermore, they contribute to the social and education sectors. They improve diplomatic relations and cooperation between countries. However, even though international students greatly benefit China in various areas, their contributions to China's international trade and cross-border e-commerce have not received sufficient attention. In addition, there are no reliable official statistics.

Our paper contributes to the current literature by empirically investigating the contributions of international students to China's international trade and cross-border e-commerce. Our research also highlights the benefits of international students to Chinese companies involved in cross-border e-commerce.

3. Methodology and Data

In this paper, the studies of Bergerhoff (et al., 2013), Münch and Hoch (2013), Oxford Economics (2013), and Süygün and Kaplan (2021) are references for analyzing the contributions of international students to the host country. International students positively affect the economy and exports of the host country.

The data used in this research are collected using a questionnaire. The population is every international student living in China. The sample size is 144 international students (73 men and 71 women) from different universities in China.

Descriptive statistics of the sample

Table 1. Origin of the participants

Origin	Subtotal	Percentage
African	122	84.72%
American	0	0.00%
European	3	2.08%
Asian	16	11.11%
Other	3	2.08%
Total	144	

Table 2. Age of the participants (in years)

Age	Subtotal	Percentage
[18-25[	39	27.08%
[25-35[	97	67.36%
[35-45[	8	5.56%
[45-more[	0	0%
Total	144	

Table 3. Duration of stay in China (in years)

Duration	Subtotal	Percentage
[0-5[	100	69.44%
[5-10[	42	29.17%
[10-15[	2	1.39%
[15-more[	0	0%
Total	144	

4. Results and Discussion

4.1. Contributions of international students to China's international trade

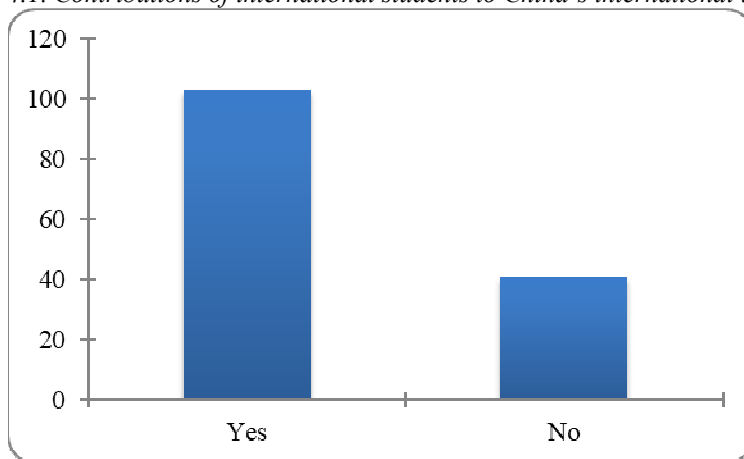


Figure 3. International students helping family members, friends, and acquaintances to buy items from China

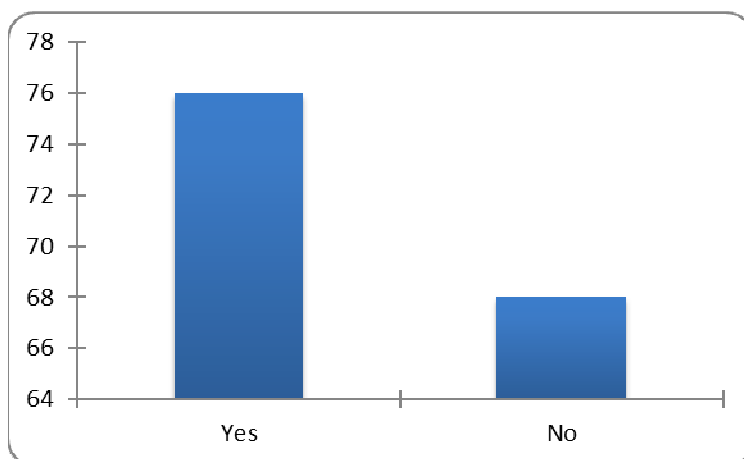


Figure 4. International students connecting family members, friends, and acquaintances outside China with Chinese companies

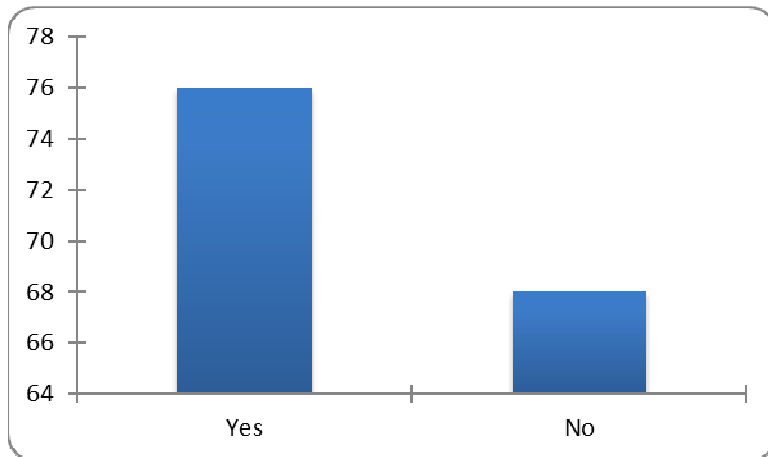


Figure 5. The volume of international students discussing with Chinese companies and checking their offices and factories on behalf of family members, friends, and acquaintances outside China

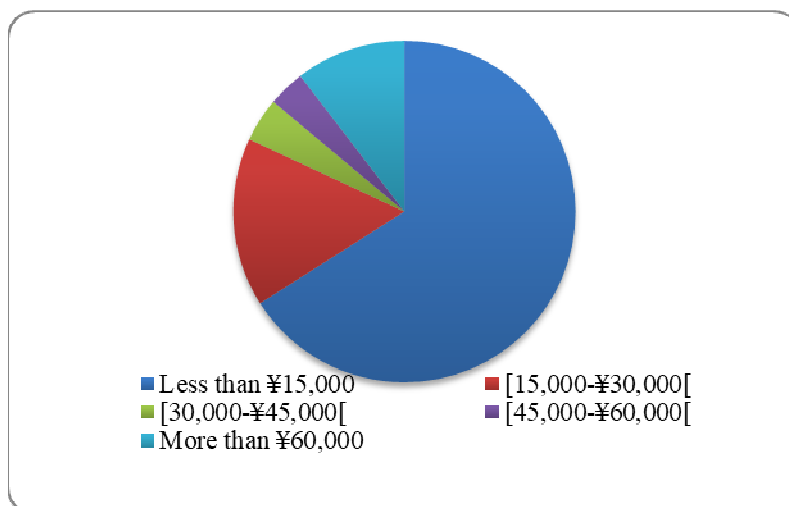


Figure 6. The annual total amount of international students' family members, friends, and acquaintances' purchases

Findings show that 71.53% of international students often help family members, friends, and acquaintances to buy items from China. 52.78% of the population frequently connects family members, friends, and acquaintances willing to purchase items from China with Chinese companies. 65.28% of the population discusses with Chinese companies and checks their offices and factories on behalf of family members and acquaintances outside China. Moreover, 10.42% of international students annually purchase items for more than ¥60,000 on behalf of their family members, friends, and acquaintances. In addition, 3.47% of the population purchases items for a total amount between ¥45,000 and ¥60,000. 4.17% of international students purchase items for between ¥30,000 and ¥45,000.

The above results indicate that international students play a crucial role in China's international trade. They are intermediaries between foreign customers and Chinese companies. International students connect people from their home countries willing to purchase items from China with Chinese companies. Moreover, they discuss with Chinese companies and check their offices and factories on behalf of family members, friends, and acquaintances.

4.2. Contributions of international students to China's cross-border e-commerce



Figure 7. The volume of international students recommending family members, friends, and acquaintances outside China the use platforms such as Alibaba express, Pinduoduo, and Taobao to buy items from China

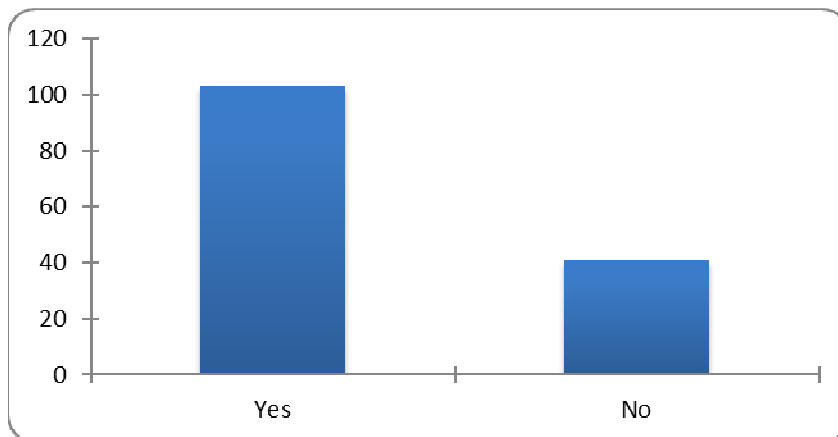


Figure 8. International students buying items from CBEC platforms for sending to their home country

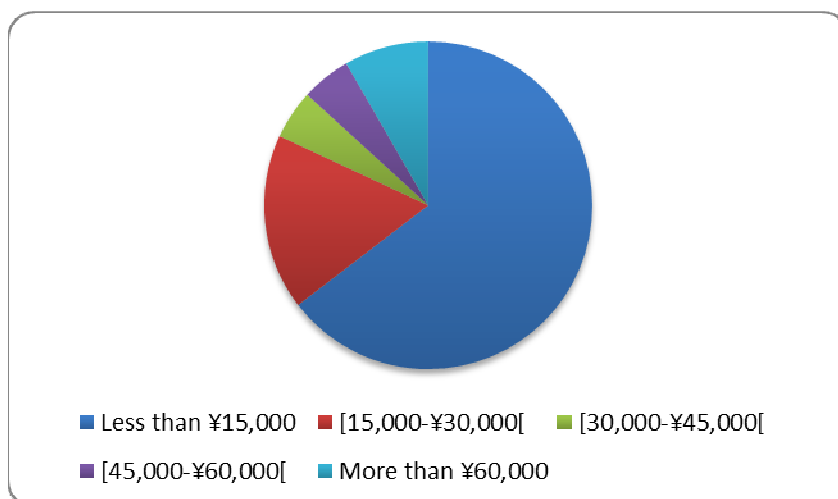


Figure 9. The annual total amount of international students' purchases for sending to their home country

Findings indicate that 71.53% of the population often recommend family members, friends, and acquaintances outside China to use platforms such as Alibaba express, Alibaba international, Pinduoduo, and Taobao to buy items from China. In addition, 81.25% of international students frequently purchase items from CBEC platforms for sending to their home country. 8.33% of the population annually buys more than ¥60,000, and 4.86% purchases items for a total amount between ¥45,000 and ¥60,000. In addition, 4.86% of international students purchase items between ¥30,000 and ¥45,000. 17.36% of the population buys items for a total amount between ¥15,000 and ¥30,000.

Results also show that international students' internships in Chinese companies involved in CBEC offer

various contributions. They help Chinese employees to discuss with foreign customers and understand their needs. International students can share the same culture and language with foreign customers. Furthermore, international students advertise Chinese companies on their social media and help them to reach a larger audience. In addition, international students are critical actors in China's cross-border e-commerce live streaming.

According to the results, international students' role in China's cross-border e-commerce is not the least. They promote and advertise China's cross-border e-commerce platforms abroad, especially in their home country. In other words, international students increase the visibility of China's CBEC platforms in foreign countries. Moreover, many international students purchase items from China's CBEC platforms for sending back home. Therefore, international students doing an internship in Chinese companies involved in CBEC play a crucial role in communicating with foreign customers and promoting and advertising Chinese companies abroad.

5. Conclusion, Implications, and Further Research Directions

This paper analyzes the contributions of international students to China's international trade and cross-border e-commerce. On the one hand, the study explores the benefits of international students to China's international trade. On the other hand, it explores their benefits to China's cross-border e-commerce. Findings indicate that international students play a crucial role in China's international trade and cross-border e-commerce.

As for international trade, they are intermediaries between foreign customers and Chinese companies. They help foreign customers to purchase items from China. Especially in the context of Covid-19, the Chinese government does not grant entry to foreign customers willing to come to China due to restrictions. Moreover, international students check Chinese companies' offices and factories on behalf of family members, friends, and acquaintances from their home country. Concerning cross-border e-commerce, the contributions of international students are not the least. They promote and advertise China CBEC platforms in foreign countries through social networks. In addition, they recommend that family members, friends, and acquaintances use China CBEC platforms such as Alibaba international, Alibaba express, Pinduoduo, and Taobao for purchasing items from China.

Moreover, international students contribute to China's CBEC by purchasing items from CBEC platforms for sending to their home country. Furthermore, international students doing an internship in Chinese companies involved in CBEC contribute to helping Chinese employees to understand foreign customers. In the same sense, they play a crucial role in CBEC's live streaming.

However, even though international students doing an internship in Chinese companies contribute various aspects to their CBEC, findings indicate that many complete their studies in China without an internship. 64.58% of international students have never done training in a company during their studies in China. 25% have only done an internship once during their studies.

Given the contributions of international students to China's international trade and cross-border e-commerce, the Chinese government and universities should promote internships for international students and facilitate the employment of graduated students.

This study offers an essential contribution to the existing literature. It contributes to the literature on the benefits of international students to the host country by being one of the earliest studies investigating the contributions of international students to China's international trade and cross-border e-commerce. This paper only focuses on China. Further research can explore the same question in other countries.

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